

APPENDIX B

**A/M32U-21 Technical Manual Contract Requirement
(TMCR 08-022)**



TMCR NO. 08-022

Date: 12/10/2008

TECHNICAL MANUAL CONTRACT REQUIREMENT (TMCR)

**SUBJECT: A/M32U-21 MAINTENANCE TRAILER
PART NUMBER: 3955AS100-1**

**ACQUISITION ACTIVITY: NAWCAD LAKEHURST
CONTRACTOR: TBD
CONTRACT NUMBER: TBD**

DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.

THIS DOCUMENT PRESCRIBES THE TECHNICAL MANUAL FORMAT, STYLE, TECHNICAL CONTENT, PREPARATION, AND DELIVERY REQUIREMENTS. INSTRUCTIONS AND GUIDANCE ARE PROVIDED TO ASSIST TECHNICAL MANUAL PREPARERS IN THE DEVELOPMENT OF ACCURATE, ADEQUATE, COMPREHENSIBLE, AND USABLE TECHNICAL DOCUMENTATION THAT CONFORMS TO AND COMPLIES WITH ESTABLISHED NAVAIR POLICY.

THIS DOCUMENT IS EFFECTIVE UPON RECEIPT AND SUPERSEDES ALL PREVIOUS INFORMATION AND INSTRUCTIONS, REGARDLESS OF SOURCE, RELATED TO THE PREPARATION OF A NAVAIR TECHNICAL MANUAL FOR THE SUBJECT EQUIPMENT. CONFORMANCE WITH THE REQUIREMENTS SPECIFIED ARE MANDATORY. NO CHANGES OR WAIVERS ARE AUTHORIZED WITHOUT THE EXPRESS WRITTEN NAVAIR APPROVAL.

**PREPARED BY:
HENRY J. DESKIEWICZ**

NAWCAD 6.8.5.1

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1.0 **Scope.** The requirements contained in this Technical Manual Contract Requirement (TMCR) apply to all technical manual information required for the support, operation, and maintenance of the A/M32U-21 MAINTENANCE TRAILER.

2.0 **Program Phase and Period of Performance.** The period of performance for The A/M32U-21 MAINTENANCE TRAILER is outlined in the program milestone schedule.

3.0 **Applicable Documents.**

Specifications, Standards, Handbooks

MIL-HDBK-3001(AS) GUIDE TO THE GENERAL STYLE AND FORMAT OF U.S. NAVY WORK PACKAGE TECHNICAL MANUALS

MIL-STD-3001-1 through -8, PREPARATION OF DIGITAL TECHNICAL INFORMATION FOR MULTI-OUTPUT PRESENTATION OF TECHNICAL MANUALS

Other Government Publications

NAVAIRINST 4120.11, Functionality and Common Look and Feel Requirements for

NAVAIR s Technical Manual(s)

NAVAIR 00-25-604, Technical Manual, NAVAIR Systems Command Fleet

Support/Integrated Program Team Acquisition and Sustainment of NAVAIR Technical Manuals

MIL-STD-1840C, Automated Interchange of Technical information

MIL-HDBK-9660B, DOD-Produced CD-ROM Products

4.0 **Technical Manual Development**

4.1 **Technical Manual Information Maintenance Level:** The technical manual information developed for the A/M32U-21 MUNITIONS TRAILER shall support Operation and Maintenance at the Operational and Intermediate maintenance level.

4.2 **Approved Maintenance Plan.** All data contained in the technical manual shall reflect the system or equipment represented in accordance with the approved Logistics Support Analysis Requirements (LSAR) maintenance plan/Support Equipment Recommendation Document.

4.5 **Type of Acquisition.** The Publication being developed for the A/M32U-21 MAINTENANCE TRAILER is a new acquisition.

4.6 **Types of Technical Information to be Developed.** The following types of technical manual information sets shall be developed in accordance with MIL-STD-3001.

- Technical Manual NAVAIR 19-25E-71
- Preoperational Checklist NAVAIR 19-600-32-6-1
- Periodic Maintenance Requirements Manual NAVAIR 19-600-32-6-2

4.5 **Additional Technical Manual Data**

4.5.1 **General Series TM Information:** Existing General Series technical manual information applicable to the A/M32U-21 MAINTENANCE TRAILER shall be referenced.

4.5.2 **Commercial Off-The-Shelf (COTS) TMs:** COTS TMs shall be acquired in accordance with MILPRF-32216. All COTS TMs applicable to the A/M32U-21 MUNITIONS TRAILER shall be included.

4.5.3 **Government Furnished Equipment (GFE) TM Information:** GFE information applicable to the A/M32U-21 MAINTENANCE TRAILER shall be included.

4.6 **Technical Manual Information in Printed Format.** The following technical manuals shall be provided in a printed format in accordance with MIL-STD-3001. Preparation of digital data for electronic delivery. Technical manual information prepared in a work package structure and delivered digitally in accordance with this standard shall be XML-tagged using modular Document Type Definitions (DTDs). The DTDs have been developed in accordance with MILPRF-28001 and ISO 8879. The DTDs are listed below.

- Technical manual assembly DTD.
- Description, principles of operation, and operation data DTD.
- Testing and troubleshooting procedures DTD.
- Maintenance information with IPB DTD.
- Aircraft wiring information DTD.
- Structural repair information DTD.
- Periodic maintenance requirements DTD.
- Illustrated parts breakdown requirements DTD.

An XML-tagged source file is composed of the applicable WP technical content in XML-coded ASCII, marked up (tagged) in accordance with the applicable modular DTD. In order to tag WP text appropriately, the author inserting the tags should be familiar with the DTD or should provide the text file to a person who is experienced with the DTD and who understands the type of documentation being written, especially when content tags are used.

- The modular DTDs referenced in MIL-STD-3001 interpret the technical content and structure for the functional requirements contained in this standard and are mandatory for use.
- The DTDs, and associated tag and attribute descriptions, which are XML constructs, may be obtained from the requiring activity.

4.7 **Development of a Technical Manual List.** A list of all technical manuals, including those to be printed for the A/M32U-21 MAINTENANCE TRAILER shall be developed in accordance with MIL-STD-3001 and delivered to the Government as part of the TM Content and Product Plan (refer to paragraph 4.9).*

4.8 **Functionality Requirements.** The minimum mandatory functionality requirements indicated by the check marks in the functionality checklist table (table 1) shall be implemented in the IETM(s). The contractor has the option of proposing additional functional requirements from those identified in the checklist. Additional functionality proposed by the contractor must be explained in the technical manual content and product plan. For a detailed definition of the functions provided in the functionality checklist, refer to NAVAIRINST 4120.11. For this TMCR, appendix A of MIL-STD-3001-1 Table A XXVIX contains matrixes that list all applicable technical content requirements for the development of complete TMs for aircraft weapon systems, aeronautical equipment, airborne weapons/equipment, and support equipment covering operation and maintenance at all maintenance levels through depot.

- **TABLE A-XXVIX. OPERATION AND MAINTENANCE INSTRUCTIONS WITH IPB MANUALS (AERONAUTICAL EQUIPMENT, AIRBORNE WEAPONS/EQUIPMENT, AND SUPPORT EQUIPMENT)**

4.9 **Technical Manual Content and Product Plan.**

4.9.1 **Content and Product Plan.** The Technical Manual content and product plan (formally called an outline) shall be submitted to the Government for acceptance prior to development of the. If rejected, the unacceptable portions shall be corrected and resubmitted. The plan shall be maintained by the contractor during the technical manual development process, and submitted to the Government for acceptance when development is completed.

4.9.2 **Content coverage.** The plan shall provide specific technical content coverage in accordance with MIL-STD-3001. The plan shall include total technical content coverage for each system, subsystem, equipment, and major component, as applicable. For each system, subsystem, equipment, and major component, Work Packages (WPs) for the following types of data shall be provided.

- a. WPs for descriptive data (for example, description, theory of operation, use of controls and indicators).
- b. Procedural WPs necessary to operate the system.
- c. Procedural WPs necessary to perform complete maintenance.
- d. WPs for test and troubleshooting.
- e. Schematics and wiring information required.
- f. Parts information coverage.
- g. Additional supporting information.

4.9.3 Content Plan. The content plan should provide a breakdown by WP for each system, subsystem, equipment, and major component, as applicable. Each WP shall be listed by title and the functional type of information that will be included in the WP. The following additional information shall be provided for each WP listed, as applicable:

- The applicable descriptive information, operation data, troubleshooting procedures, maintenance tasks, procedures, and IPB data included
- The identification of the supporting graphics and the graphic format
- Reference data and whether it is linked or externally referenced
-

4.9.4 Additional content information. The following additional information shall be included in the plan, as applicable.

- Data for the front matter, depending on the type of output
- The plan shall include the contractor's approach to task analysis showing traceability to the logistics support analysis or approved maintenance plan. The plan shall be correlated to the maintenance concept or plan by direct referencing.
- Problems regarding requirements, interpretation, and application shall be identified.
- Conflicts between standards and guidance documents shall be highlighted.
- An explanation or initial demonstration of the way the technical content information will be rendered on the display device and an overview of how the user will access the technical information. Contractor has proposed plan for data (text, graphics, other media) re-use across data types (including training data), weapons system/equipment configurations and foreign military sales. Plan shall include a list of re-use objects with potential for use across DOD, well as those items that are unique to the system addressed in this. Contractor's approach to managing the relationship between content and weapon system/equipment affectivities, both USN and foreign military sales. If the contract is for a legacy conversion program, legacy WPs that must be broken into additional WPs due to a content conflict with MIL-STD-3001 shall be noted and a traceability file shall be included in the plan.

4.9.5 Product coverage. The plan shall include contractor recommendations for:

- a. Packaging of the content, i.e., single or multiple products, based on defined maintenance concept or direction from the Program Office. This is especially important for a legacy conversion program.
- b. External and internal links and references.
- c. Use of COTS and/or other TMs, included, excluded, or referenced, such as:
 - General Series TMs
 - COTS manuals
 - Other referenced (i.e. embedded) technical data (e.g. MJPA's, TDPs, USAF TO, etc.)

4.10 Quality Assurance Requirements. The contractor shall adhere to the requirements provided in NAVAIR 00-25-604. QA requirements shall be provided in the contractors Technical Manual Quality Assurance Program Plan. An initial Guidance Meeting and Quality Program Review may be conducted within sixty days after award of the contract. The Guidance Meeting will be chaired by a NATEC QA representative. The contractor will demonstrate the technical data quality program to the government at this time. The government may inspect the product to be prepared hereunder at various stages of development. The contractor will support In-Process Reviews (IPRs) for the technical information contained in the technical manual as required. IPRs shall be conducted by the NATEC QA representative in accordance with the following schedule:

Guidance Meeting: The Technical Manual Initial Guidance Conference is scheduled after contract award to provide guidance to contractors as follows:

- A preparing activity's initial (first) effort on work package format manuals, and/or
- In response to a justified request by the preparing activity or the government.
- The extent of guidance will be tailored to the specific requirements of each separate Guidance Meeting.
- The contractor shall provide a technical writer and an individual to act as recorder for all scheduled reviews.

It should be noted that Guidance Meetings are convened to provide guidance to contractors, early in their TM programs relative to preparation of TM products. Contractors are recommended to adequately prepare for such conferences, to ensure guidance to the required depth.

At thirty-percent completion:

- Need to have boilerplate format information to the HMWS pages.
- Have placeholder WP's with placeholder paragraph data.

- Some technical content.

At sixty-percent completion:

- 30% TMER's incorporated
- Some IPB's, Drawings, Figures, Diagrams, & Schematics.
- HMWS explanations should be compiled but not complete.
- 60% of the intended technical content should complete.
- Placeholders should be complete.

At ninety-percent completion:

- 60% TMER's incorporated.
- Hyperlinks in place and working.
- Strive to have a 100% completed manual
- HMWS should be complete.
- IPB, drawings, figures, diagrams, & schematics should be complete.
- Technical content should be complete.

Validation

- The contractor must validate its product in accordance with the guidance provided in NAVAIR 00-25-604. The Government will not accept data that has not been validated. Requests to deviate from requirements in NAVAIR 00-25-604 shall be documented by the contractor and forwarded to the NATEC QA representative for approval/disapproval. (This has been changed to the LEM's) The contractor shall verify that delivered data complies with MIL-PRF 28001 and validated as required by NAVAIR 00-25-604. The Validation Certificate shall be prepared in accordance with NAVAIR 00-25-604 concurrent with delivery of the technical/source data.

Verification

- When specified by the acquiring activity, verification will be accomplished under the jurisdiction of the Government and may include contractor support. Verification is a responsibility of the approval authority or authorized representative. The purpose of verification is to ensure that the contractor's products and services are in conformity with the requirements of this specification.

Final Desk Top Review (DTR)

- Verification TMER is incorporated.
- Check for PDF Conversion for web posting.

4.11 **Contractor Configuration Control.** The contractor shall ensure the positive control of changes to the TM's through update and maintenance of the NATEC approved TM Configuration Control Plan. Control of data shall include, but not be limited to, data resulting from urgent/safety changes (RACs/IRACs), Technical Directives (TDs), Class I and II Engineering Change Proposals (ECPs), Manual Change Releases (MCRs), and Technical Publications Deficiency Reports (TPDRs). The plan shall detail how the contractor digitally tracks the source data being incorporated in the and, concurrent with data update deliveries, submit to NATEC and DCMC QA representative a succinct digital list of data incorporated. This list shall also indicate the location of data updates to allow QA review of incorporated changes. The contractor shall maintain and update the plan as required and generate reports for each update for the duration of the contract.*

5.0 **General Requirements**

5.1 **Assignment of Technical Manual Numbers.** The contractor shall submit a formal request to the Program Logistics Element Manager (LEM) via the Contract Administration Office (CAO), for any required numbers not included in this TMCR nor furnished to the contractor within thirty (30) days after issuance of an order under this contract. numbers will be assigned and changed by correspondence from the LEM.* Contingent on the required deliverable(s) in this TMCR, TM numbers may need to be assigned for outputs managed by the Navy. Single TMs shall have a single TM number assignment. TMs delivered in paper or PDF shall have a single number assigned for each output.

5.2 **Status Reports.** Technical Manual Status Reports shall reflect status of material being developed under this contract. The reports shall include all information related to contract accomplishments, current scheduled contract requirements, and future proposed plans. The specific form for submission will be reviewed and approved by NATEC. If

an equivalent contractor prepared internal status report is available, the contractor's format may be approved. Status reports shall cover each manual from the date the technical manual requirement is identified.

5.2.1 Information to be reported. The status report shall be divided into three (3) parts.

As a minimum, Part A of each report shall indicate the following information as applicable:

- a. Contract number and contract delivery order or modification number and date.
- b. Nomenclature and identification number of the system/equipment being covered by the manual
- c. Identification of all assigned technical manual numbers against identified technical manual requirements, including category of equipment (CFE/GFE) and TMDC numbers, if applicable.
- d. The approved title of the manual and the approved levels of maintenance covered therein.
- e. Problems encountered: status of maintenance plans, provisioning data, LSA data, SERD's and support equipment availability shall be reported, as applicable.
- f. Contractual and projected delivery dates, explanation of slippages and "get well" dates. The contractual delivery date shall be the date cited in the ordering document.
- g. Any delays that may affect the development of production of deliverable items.
- h. The required and actual completion percentage of the manual at the time of the report.
- i. The date technical manual requirement was identified; contractor proposals/TMDC shall be tracked from date of submittal to NATEC.
- j. Technical manual issue date.
- k. Type of issue: P - preliminary; C - change; R - revision etc.
- l. Date material is delivered; this date shall be the government's acceptance date. When deliveries have been completed; both the contractual and actual delivery dates shall be cited.
- m. Recommendations/remarks.
- n. Status of RACs and the RAC order.

Part B of the status report shall indicate the following information as applicable:

- a. ECP number
- b. Technical manuals affected by each ECP
- c. Contract/order numbers
- d. Letter number of contractor's proposal(s)

As a minimum, Part C of each status report shall indicate the following information for support equipment for each applicable weapon system:*

SERD Item	SERD App	SE Item	SM&R	"O" Level Manual	"I/D" Level Manual	Actual Manual	TMDC No.	Schedule Delivery		
<u>P/N</u>	<u>No. Date</u>		<u>Name</u>	<u>Code</u>	<u>Code(s)</u>	<u>No(s)</u>	<u>Action</u>	<u>Sub. Date</u>	<u>Delivery</u>	<u>Date</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

Legend

- (1) Part Number (Block 33A of SERD): list in alphanumeric sequence
 - (2) SERD Item Number (Block 33 of SERD)
 - (3) SERD Approval Data (Block 32 of SERD)
 - (4) SE Item Name (Block 4 of SERD)
 - (5) SM&R Code (Block 25 of SERD)
 - (6) Manual Code(s) - all manual codes in Block 18 of the SERD shall be identified: In addition, all MRC and/or Calibration requirements identified in Blocks 20 and 23 shall be identified
 - (7) Manual Numbers - all applicable publication numbers corresponding to the SERD manual shall be listed: "TBD" shall be entered until manual numbers are assigned to new manuals
 - (8) "O" Level Manual Action - indicate Basic (B), Revision (R) or Change Number (C1, C2, etc.) of manual into which the support equipment will be incorporated.
 - (9) "I/D" Level TMDC Number and Date of Submittal of TMDC shall be entered.
 - (10) Delivery date cited in the ordering document.
 - (11) Date of delivery of the applicable Basic, Change or Revision.
- Bars shall be placed in the right-hand margin to indicate information which is added or revised since the last issue of the status report. Data shall be initiated in Blocks 1, 2 and 4 through 7 upon submittal of the Preliminary SERD

by contractor to Naval Air Warfare Center Aircraft Division, Lakehurst. Following SERD approval by NAVAIRWARCENACDIV, the data shall be kept up-to-date as required.

5.3 Logistic Element Manager. The Technical Publications Logistics Elements Manager (LEM) Designated by the NAVAIR Logistics Competency's Technical Manual Lead (6.8) is:

Name: Henry Deskiewicz
Activity Name: NAWCAD 6.8.5.1
Address: NATEC
PO BOX 357031 Bldg 2
San Diego Ca 92135-7031
Phone Number: Com 619-545-1717
Fax number: 619-545-2276

5.4 Cognizant Field Activity (CFA) Acquisition Program Manager Logistics (APML)

Name: Michael Perkins
Activity Name: NAWCAD 6.6.4.9
Address: Highway 547, Bldg 596-2
Lakehurst, NJ 08733
Phone Number: Com 732-323-1379
Fax number: 732-323-7402

The APML and Technical Publications LEM shall be the point of contact for coordination of all matters relating to the publications prepared hereunder.

5.5 Government Furnished Documents/Software. The contractor shall apply for and obtain an account for the Technical Manual Application System (TMAPS), required for managing various TM functions. TMAPS is available on the NATEC web site at <https://mynatec.navair.navy.mil>.*

5.5.1 NAVAIR Standard IETM Viewer (NSIV) Tool Kit: To develop technical manuals in accordance with the requirements provided in MIL-STD-3001, the latest version of the NSIV Tool Kit must be acquired through the Program Office.

5.5.2 GFE Documents and Software: List any additional GFE documents and software required for the project.

5.6 Software Interoperability. All software/software versions required for electronic technical manual distribution and presentation shall be as identified in the NMCI Gold Disk (latest version), or be an approved Navy Functional Area Management (FAM) product.*

5.7 Transmittal Instructions. Material furnished under this TMCR shall be delivered to the APML with DD Form 250 for inspection and acceptance.

The DD-250s for all non-IETM manual deliveries shall identify the total number of units delivered, the number of affected units, and the TMCR under which the delivery requirement was established. An affected unit shall be defined as any delivered unit in a changed issue other than back-ups and blanks. In the case of a "re-issue", pages delivered solely for re-issue purposes shall be considered back up. All pages delivered during revision shall be considered affected with the exception of blanks.

Deliverables under this TMCR including backup pages, reproduction assembly sheets and Electronic Media shall be packed in accordance with best commercial practice for contractor transmittal to the TM LEM with DD Form 250 for inspection, acceptance and the preparation of print orders for printing and distribution of printed copies.

5.8 Classification Information. All classified documents shall be marked as required by DOD 5220.22-M, Industrial Security Manual for Safeguarding Classified Information, as implemented by SECNAV M-5510.36, Department of the Navy Information Security Program.

Where higher classified information would comprise 10 percent or less of the basic manual's content and would be concentrated in one area of the manual, such information shall normally be prepared as a classified supplement, permitting the basic manual to be issued at a lower classification or as an unclassified publication. The respective title pages of both the basic manual and the supplement shall contain a cross-reference note to each other. NATEC approval is required for each supplement.

5.9 **Duplication of Data.** The contractor shall ensure that there will be no costs in this contract for technical data already developed and further ensure that requirements contained in the TMCR/order do not duplicate data generated by other tasks or data requirements being furnished by this contractor under other Navy contracts. This data, i.e., LSA data, engineering data and such other data as may have been previously furnished, shall be utilized to the maximum extent possible as source data for the technical manuals to be furnished under this contract and the unit prices shall not include development costs for previously acquired data. In addition, the contractor shall utilize existing TMs provided by the Government to determine if technical manual data required for this program already exists.

5.10 **Notification of Delay in Delivery.** In the event that the contractor cannot meet the delivery schedule of any technical manual information cited in this contract and/or applicable order issued under This contract, Notify the APML and the LEM immediately of the delay, the reason for the delay, corrective action, and the proposed new delivery schedule.

5.11 **Distribution Statements and Other Markings.**

5.11.1 **Distribution Statement.** All technical manuals shall have a distribution statement placed on the title page. The appropriate distribution statement will be provided by the Government.

5.11.2 **Export Control Notice.** Publications with export controlled data shall be marked with an export control notice provided by the acquiring activity from DoD 5230.24.

5.11.3 **Destruction Notice.** All technical manuals marked with distribution statements "B", "C", "D", "E", "F", or "X" shall be marked with the destruction notice provided by the acquiring activity from DoD 5230.24.

5.11.4 **Authority Notice.** The publishing approval authority statement should be presented in capital letters on the title page or frame as follows:

"PUBLISHED BY DIRECTION OF THE COMMANDER, NAVAL AIR SYSTEMS COMMAND"

5.12 **Technical Publications Deficiency Reports (TPDR) Management.** The contractor shall access customer submitted TPDRs in TMAPS on the NATEC web site. TPDRs shall be managed in accordance with the COMNAVAIRFORINST 4790.2. All TPDRs shall be evaluated for safety impact. Safety TPDRs shall be dispositioned with corrective action taken via issuance of an IRAC as soon as possible. Routine TPDRs will fall into the 3 categories: Cat 2, Cat 3, or Cat 4 as defined in COMNAVAIRFORINST 4790.2. The contractor shall review TPDRs for validity and impact to readiness. TPDRs status shall be maintained in TMAPS by the contractor as the status changes. Valid TPDRs shall be closed upon delivery of the TM/ update.

5.13 **Publication Order Sheets (POS), National Stock Numbers (NSN) Assignments and Bar Codes.** After the copy freeze date, prior to formalizing the title page or title frame, and no more than 75 days prior to delivery of the manuals, the contractor shall forward an advance copy of completed POS sheet to NATEC (Distribution Code 6.8.5.3.1) for assignment of NSNs. Contractor may use electronic mail to submit the advanced POS, in order to obtain a NSN, in lieu of the paper POS, but must provide all the information required by the form. The POS submittal should be clearly marked **"DATA FOR NSN/BAR CODE ASSIGNMENT ONLY."** The electronic mail address is michael.j.perkins@navy.mil The electronic mail shall be clearly marked with contractor's electronic mail return address. The NSN and corresponding bar code must be incorporated into the cover and title page prior to any delivery. The formal POS, including assigned stock number, must be submitted to the NAWCAD LKE (Code 6.6.4.9) no more than 30 days prior to delivery. This POS shall initiate the generation of label requirements for printing and distribution.

6.0 **Deliverables.** Technical manual delivery requirements will differ based on project requirements and the types of technical manuals that are to be delivered. Delivery requirements including scheduled delivery dates should be included in the TMCR. The TMCR should provide the delivery requirements for the project including, but not limited to, the following:

- The type of delivery media desired for the project such as CD-ROM, DVD paper, etc.
For S1000D, a runtime file for all IETMs (for display in the NSIV viewer) listed in the DMRL. For S1000D, a Technical Manual Content and Product Plan, forwarded to the LEM (PDF or Word), including a fully executed DMRL and functionality matrix, 90 days prior to start of content development.
- For MIL-STD-3001, a Technical Manual Content and Product Plan, forwarded to the APML (PDF or Word), in accordance with MIL-STD-3001-1 appendix A, 90 days prior to start of content development.
- PDF requirements shall be in accordance with the current requirements published in the Technical Manual Conversion Guidelines on the NATEC website at <https://mynatec.navair.navy.mil/> at the time of delivery. An

original paper copy of the TM printed from the PDF file shall be delivered with the electronic file. This will ensure that the PDF file will print properly for paper distribution.

- For S1000D, a Common Source Data Base (CSDB), when required. (Not applicable for this contract)
- The DTD/Schema, style sheets and Format Output Specification Instance (FOSI), if applicable, shall be included in the final technical manual delivery, if the Government furnished products were modified, or if non- Government furnished products were used.
- Deliverable requirements for RACs, Changes, and Revisions to the IETMs and individual TMs delivered under this TMCR. Deliverables shall be directly uploaded to TMAPS.

6.1 **Schedule.** In Accordance With CDRL's

If CD-ROMs are required they shall be clearly dated and marked to indicate the content contained on the media. Labels shall indicate whether there is more than one media item in the series, i.e., "Disk 1 of 3", etc. All media shall be marked and handled with appropriate security classification level in accordance with DOD 5220.22, Industrial Security Manual for Safeguarding Classified Information as implemented by SECNAV M-5510.36, Department of the Navy Information Security Program.

The CD-ROM shall contain a README.txt file containing instructions for opening, viewing and printing the files, as guided by MIL-HDBK-9660. The CD-ROM shall contain an index.txt file containing the following data in tabular form from left to right:

- a. Publication Identification Number
- b. Publication Date
- c. Publication Title
- d. Publication Revision Level
- e. File Name(s), Format(s), and file date(s).

When applicable, PDF shall be prepared from the revisable master (i.e. authoring source file) and shall be delivered on ISO 9660 compliant CD-ROMs for all publications.

For changes, when directed by the TM LEM, the CD-ROM shall include both a completely collated file of the manual with current changes and a change file consisting of only the current changed pages. This will facilitate print and distribution of paper changes by the TM LEM as required. **(Not Applicable to this Contract).**

For Revisions, the CD-ROM shall include only a collated file of the manual with current changes incorporated. **(Not Applicable to this Contract).**

Any special printing instructions shall be forwarded with the files at time of delivery. The following are examples of special printing instructions: lamination, color graphics, special paper stock, tabbing, odd size (i.e., not 8 1/2" x 11"), etc.

6.2 **Retention and Delivery of Revisable Master.** Until called for by the government, the contractor shall retain, at no additional cost to the government the A/M32U-21 MUNITIONS TRAILER Common Source Data Base (CSDB) that contains at a minimum: A digital revisable master files (XML tagged instance(s) and graphics and reusable object files) of the technical manual information. The revisable source shall reflect the latest issue of the technical manual information.

7.0 **Citation of Joint Committee on Printing (JCP) Authorization.** JCP Authorization 23383 grants production of composition and printing media procured under this contract.

8.0 **Technical Manual Size Restriction (Hardcopy)** New manuals and revisions to existing manuals, furnished under this contract shall not exceed three inches in thickness. Manuals exceeding the three inch limitation shall be volumized. The determination of the necessity for volumization of changes to existing manuals that exceed the three inch limitation shall be coordinated with NATEC's Data Manager.

9.0 **Title Page Review.** Forty five (45) days prior to the preparation of any print media to be furnished here under, the contractor shall submit a review copy of all title pages to NATEC. NATEC will notify the contractor within ten (10) working days of any required corrections. Title page review is not required for RACs.

10.0 **Changes/Revisions.** Changes/revisions are necessary to provide the user with the most technically accurate information possible. Issuance of engineering change proposals (ECPs), technical publication discrepancy reports

(TPDRs), rapid action changes (RACs), interim rapid action changes (IRACs), etc., will require periodic changes to the technical manual data. For some IETMs, revisions may be required to be provided on a scheduled basis, such as every 3, 6, 9 months.* (List all required project revision and change requirements along with the scheduled delivery dates). (**Not Applicable to this Contract**).

END OF TMCR

TECHNICAL MANUAL VALIDATION CERTIFICATE

TECHNICAL MANUAL TITLE

TECHNICAL MANUAL IDENTIFICATION NUMBER

DATE

CONTRACT/TMCR NO.

I - VALIDATION

Except as stated in II, the technical manual identified above has been satisfactorily validated in accordance with all requirements of the applicable TMCR and the approved Validation Plan. The technical manual is hereby certified to be accurate and complete, and the information, instructions, text, and illustrations conform in all respects to the applicable general and detailed specifications.

II - EXCEPTIONS

EXCEPTIONS
(Brief Description and References)

AUTHORIZED BY
(Government Representative Name/Code)

SIGNATURE OF CONTRACTOR'S PUBLICATIONS QUALITY ASSURANCE OFFICER

DATE

TECHNICAL MANUAL VERIFICATION INCORPORATION CERTIFICATE	
TECHNICAL MANUAL TITLE	
TECHNICAL MANUAL IDENTIFICATION NUMBER	DATE
CONTRACT/TMCR NO.	
I - VERIFICATION INCORPORATION	
<p>All the discrepancies and deficiencies recorded during verification of the technical manual identified above have been corrected or resolved in accordance with the disposition column of the Verification Discrepancy/Disposition Record and incorporated into the Final Reproducible Copy (FRC). The technical manual is approved by:</p> <p style="text-align: right;">_____ Cognizant Government Management Activity</p> <p style="text-align: right;">_____ Letter/Message Date</p>	
II - REMARKS	
SIGNATURE OF CONTRACTOR'S PUBLICATIONS QUALITY ASSURANCE OFFICER	
DATE	